



The Anderson Street bridge was part of the major works known as the Upper Yarra Improvements which started in 1897.

The river was widened and straightened as a flood control measure following severe floods in July 1891. The excavated soil was used to form new banks on both sides.

On the southern side a wide boulevard had separate paths for pedestrians, equestrians, cyclists, and carriages. The bridge was finished in August 1899 but could not be used until May 1901 when the boulevard was opened and named Alexandra Avenue.



Frank Gummow
(1862-1946)



Building the Bridge

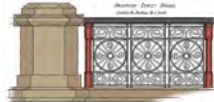
In the early 1890s the Sydney firm of Carter Gummow & Co acquired the rights to build Monier bridges in Australia. This bridge was designed by their Chief Engineer Walter Baltzer in conjunction with the Victorian Public Works Department Victoria. Carlo Catani was the Engineer for Works. The bridge was built by the company, assisted by Melbourne consulting engineers John Monash & Joshua Anderson.

For more information about this project, please scan



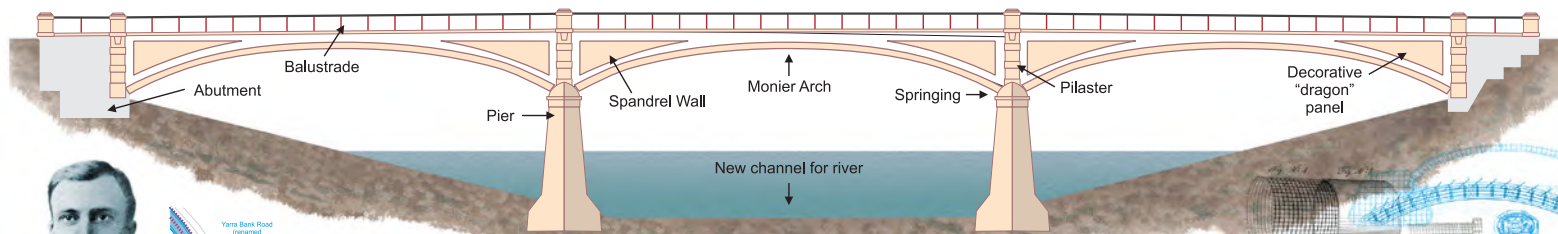
This drawing shows the detail of the balustrade panels

In 1938 the eight electric light standards in 19th century style were installed



Morell (Anderson Street) Monier Arch Bridge

The First Use of Reinforced Concrete in Victoria

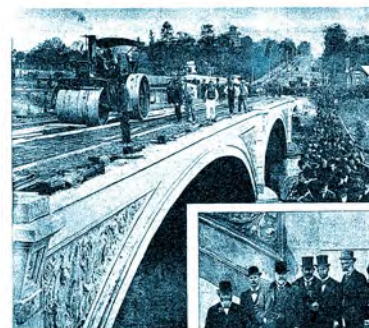


Why an Arch Bridge?

The graceful curve of an arch bridge transfers some of the weight of the bridge and its traffic into a horizontal force resisted by the abutments. Longer bridges may have several arches supported by piers in the middle.

People have been building arch bridges for thousands of years. They're simple, they work, and they can be quite pleasing in appearance. To build a Monier arch bridge, timber formwork was erected and steel reinforcement put in place. Then the concrete was poured into the form – in 1899 they used wheelbarrows.

When the concrete had gained sufficient strength, the formwork was removed.



To demonstrate its strength, half of one arch was loaded with a 13-ton road roller – "nearly all the leading engineers of Melbourne attended".

[Leader, 29 July 1899]



In 1935 the bridge was renamed the Morell Bridge in honour of Sir Stephen Morell, a former Lord Mayor of Melbourne.

In 1998 the bridge was closed when vehicle traffic was transferred to the Monash Freeway and is now used by pedestrians and cyclists.

From Pots to Ponts

French horticulturalist Joseph Monier devised a method of making flower pots and garden furniture by using a mesh of thin iron rods to reinforce concrete. He took out a patent in 1867 and continued to find new uses for the method which makes the best use of each material. The technique was soon applied to other structures and in 1875 Monier designed and built the first iron-reinforced concrete bridge (*pont* is the French word for *bridge*).



The decorative cast iron panels and fittings were made at the Excelsior Foundry which had been set up in South Melbourne in 1888 by William Stephens.

Monash & Anderson

The bridge was the first in Victoria built with the new Monier system but by no means the last. In fact construction started on a bridge near Geelong in February 1899 designed and built by Monash & Anderson who had been appointed agents for the new system. They would go on to build many more Monier arch bridges throughout Victoria before John Monash developed his own girder designs.



Joseph Monier
(1823-1906)